

## **Design and Technology - National 3**

The Course provides a broad practical introduction to design and to technology. It provides opportunities for learners to gain basic skills in both designing and in communicating design ideas. It allows learners to explore and amend design ideas through model making and testing, in both product design and engineering contexts.

The aims of the Course are to enable learners to:

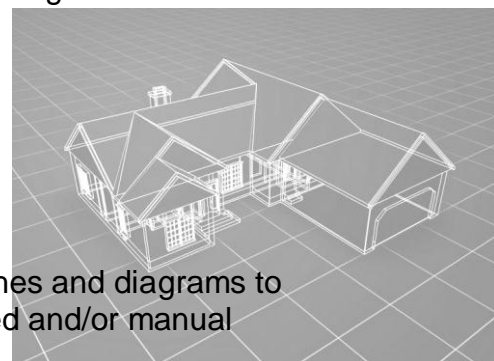
- develop skills in producing and interpreting sketches, drawings and diagrams
- develop skills in practical model making and construction
- develop skills in testing and simple evaluation of models
- apply safe working practices in a workshop or similar environment
- develop knowledge of basic engineering ideas

The Course introduces learners to ideas and skills which they may then choose to take forward through further study in the technologies curriculum area.

**Course structure:** The course has three units.

### **Graphics for Design**

Learners will develop skills in producing drawings, sketches and diagrams to support the design process. They will use computer-aided and/or manual graphic communication tools and techniques.



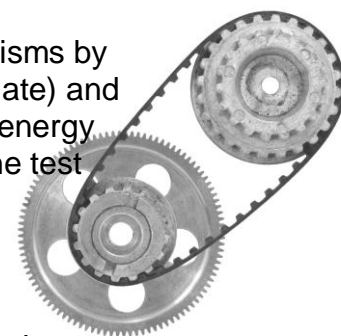
### **Designing and Modelling**

Learners will follow, with guidance, a simple design process. They will make a simple physical model from design drawings, and refine the design based on simple evaluation of the model. Through these activities, learners will develop awareness of sustainability and recycling.



### **Constructing and Testing**

Learners will develop an understanding of structures and mechanisms by solving simple engineering problems. They will construct (or simulate) and test simple models to demonstrate one or more of strengthening, energy transfer or movement. Learners will draw conclusions based on the test results.



### **Assessment method**

To gain an award for this course, learners need to pass all three units. Each unit is graded Pass or Fail.